



Title METHODS OF DETECTING AND TREATING MICROSATELLITE-INSTABILITY

**Inventors Huang and Chadwick**

Serial No 10/024,450

Filing Date December 17, 2001

Attorney Docket: P-LJ 5101

USPTO Customer No. 23601 (858-535-9001)

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hRIZ	YDQVTEVA ATETLAEVPE HVLRLGLPEEV RLFPSSAVIDKT RIGVWATKPI LKGKKKGFPFV	60
rRIZ	YDQVTEVA ATETLAEVPE HVLRLGLPEEV RLFPSSAVIDKT RIGVWATKPI LKGKKKGFPFV	59
Consensus	YDQVTEVA ATETLAEVPE HVLRLGLPEEV RLFPSSAVIDKT RIGVWATKPI LKGKKKGFPFV	60
hRIZ	CDKKKRSQVK PNLGNCMCLIDA TOPEKGNWLR YVNWACSGEE QNLFPLEINR	120
rRIZ	CDKKKRSQVR PNLGNCMCLIDA TOPEKGNWLR YVNWACSGEE QNLFPLEINR	119
Consensus	CDKKKRSQV PNLGNCMCLIDA TOPEKGNWLR YVNWACSGEE QNLFPLEINR	120
hRIZ	AIYYKTLKPI APGEELLWVY NGEDNPETAA AIEEEERASAR SKRSPSKSR GKKKSENKN	180
rRIZ	AIYYKTLKPI APGEELLWVY NGEDNPETAA AIEEEERASAR SKRSPSKSR GKKKSENKN	179
Consensus	AIYYKTLKPI APGEELLWVY NGEDNPETAA AIEEEERASAR SKRSPSKSR GKKKSENKN	180
hRIZ	KCNKIQDQKL KISEIDTSA NMR SAEGPK EDEPASA EQPAQLEEV AIEEVREPLA	240
rRIZ	KCIRTHPTQKL KSEIDTSA NMR SAEGPK EDEPASA EQPAQLEEV CNOQDAVQDVA	239
Consensus	KC...QKL KSEIDTSA NMR SAEGPK E...PASA EQPAQLEEV .Q...P.EV	240
hRIZ	TPPAVEQPQF EDDKQRAA CENVDCEE EEEEEEEEDDDDDDELE DECCEEAEMP	300
rRIZ	TPPAVEQPQF EDDKQVTD CENVDCEE EEEEEEEEDDDDDDELE DECCEEAEMP	295
Consensus	TPPAVEQPQF E.D...E...CEVND .EEE EEEEEE.EEE.EE...L...L...G.EEA.MP	300
hRIZ	NPSKKEPEI RCEKPEDLL EEPKTTSEER LEDCSEVTPA MQIPRKEEA NGDVEETMF	360
rRIZ	NPSKKEPEI RCEKPEDLL EEPKTTSEER LEDCSEVTPA PHTPRAKEEA NGDVEETMF	355
Consensus	NPSKKEPEI RCEKPEDLL EEPKTTSEER LEDCSEVTPA PHTPRAKEEA NGDVEETMF	360

## FIGURE 1A

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hRIZ	PCQHCKERKF	TKQGLERHMI	IHIST	NAF	KCKYCGK	FG	TQINRRHER	RHEGLKR	420
rRIZ	PCQHCKERKF	TKQGLERHMI	IHIST	NAF	KCKYCGK	FC	TQINRRHER	RHEGLKR	415
Consensus	PCQHCKERKF	TKQGLERHMI	IHIST	NAF	KCKYCGK	FC	TQINRRHER	RHEGLKR	420
<hr/>									
hRIZ	STRLQSED	ADGKNSGENV	PSKDSSPPS	LGDCLI	NS	EXSOOTINS	SVEENGEVK	480	
rRIZ	STRQSEDP	EDGKNSGENV	SKDDESSPPS	LGDCLI	NS	EXSQEVINS	SVEENGEVK	473	
Consensus	STRQSEDP	EDGKNSGENV	SKDDESSPPS	LGDCLI	NS	EXSQEVINS	SVEENGEVK	480	
<hr/>									
hRIZ	ELHPCKYCKK	VFGTHTMNMR	HQRVRHERL	IPKGVRRKGG	LG	IPOPPAE	QADATQNNVV	539	
rRIZ	ELHPCKYCKK	VFGTHTMNMR	HQRVRHERL	IPKGVRRKGG	LG	IPOPPAE	QAPPSONNNVV	533	
Consensus	ELHPCKYCKK	VFGTHTMNMR	HQRVRHERL	IPKGVRRKGG	LG	IPOPPAE	QAPPSONNNVV	540	
<hr/>									
hRIZ	PSTEPEEE	DDVYIMDIS	SNISENLNYY	IDGKIQTN	TSNCDVIEME	SPSALYCGIV	599		
rRIZ	PSTEPEEE	DDVYIMDIS	SNISENLNYY	IDGKIQTN	TSNCDVIEME	SPSALYCGIV	593		
Consensus	PSTEPEEE	DDVYIMDIS	SNISENLNYY	IDGKIQTN	TSNCDVIEME	SPSALYCGIV	600		
<hr/>									
hRIZ	CLCTPTVTEI	TQNIKETQV	VTIDU	RTASPPPLPK	IKPET	SPDM	659		
rRIZ	CLCTPTVTEI	TQNIKETQV	VTIDU	RTASPPPLPK	IKPET	SPDM	653		
Consensus	CLCTPTVTEI	TQNIKETQV	VTIDU	RTASPPPLPK	IKPET	SPDM	660		
<hr/>									
hRIZ	PSCSLSLPL	SISTI	VSF	HKEKVYLLSS	KLKQLQTD	KLT	PAGUSA	719	
rRIZ	PSCSLSLPL	SISTI	VSF	HKEKVYLLSS	KLKQLQTD	KLT	PAGUSA	713	
Consensus	PSCSLSLPL	SISTI	VSF	HKEKVYLLSS	KLKQLQTD	KLT	PAGUSA	720	

FIGURE 1B



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hRIZ	SAPASMLPV	TSSRFKRRTS	SPPSSPQHSP	ALRDFCKHD	CKAAWTDAQL	TSKKKLESH	779
rRIZ	SAPASMLPV	TSSRFKRRTS	SPPSSPQHSP	ALRDFCKHD	CKAAWTDAQL	TSKKKLESH	773
Consensus	SAPASMLPV	TSSRFKRRTS	SPPSSPQHSP	ALRDFCKHD	CKAAWTDAQL	TSKKKLESH	780
hRIZ	SDSPAWSLSC	RDERETN	SPP CFDEYK	SKE WASS	FSSV CNQQPLDLS	GVKQK ECTQ	839
rRIZ	SDSPAWSLSC	RDERETN	SPP CFDEYK	SKE WASS	FSSV CNQQPLDLS	GVKQK ECTQ	833
Consensus	SDSPAWSLSC	RDERETN	SPP CFDEYK	SKE WASS	FSSV CNQQPLDLS	GVKQK ECTQ	840
hRIZ	KTPV	WESVL DLSVHKKCS	DSECKEFKES	PSVOPTCASV	KKKKPPTTCML	QKVLLNEYNG	899
rRIZ	KTPV	WESVL DLSVHKKCS	DSECKEFKEN	PSVOPTCASV	KKKKPPTTCML	QKVLLNEYNG	889
Consensus	KTPV	WESVL DLSVHKKCS	DSECKEFKE	PSVOPTCASV	KKKKPPTTCML	QKVLLNEYNG	900
hRIZ	10LP	ENPAD VTRSPSPCKS	LEQPDF	LG P	SGFPAPTV	ESPAPV PS	LOT SLS
rRIZ	VSLP	ENPAD VTRSPSPCKS	PDQPDF	LG P	SGCSVPT	ESTPAPVPS	SPLOT SLS
Consensus	10LP	ENPAD VTRSPSPCKS	PDQPDF	LG P	SGCSVPT	ESTPAPVPS	SPLOT SLS
hRIZ	SQLPLPLU	T PSSSSPPCP	PVLTVATPPP	PLPTVPLPA	PSSEASPHC	PSP SN TAQ	1018
rRIZ	SQLPLPLU	T PSSSSPPCP	PVLTVATPPP	PLPTVPLSH	PSSEASPHC	PSP SN TAQ	1009
Consensus	SQLPLPLU	T PSSSSPPCP	PVLTVATPPP	PLPTVPLU	PSSEASPHC	PSP SN TAQ	1020
hRIZ	SPLPLSPTV	SPSPSPPTV	EPLMSAASPG	PPTLSSSSSS	SSSSSSSS	SSSSSSSS	1078
rRIZ	SPLPLSPTV	SPSPSPPTV	EPLMSAASPG	PPTLSSSSSS	SSSSSSSS	SSSSSSSS	1067
Consensus	SPLPLSPTV	SPSPSPPTV	EPLMSAASPG	PPTLSSSSSS	SSSSSSSS	SSSSSSSS	1080

FIGURE 1C



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hRIZ	LSA[SSVSS CONLEASLPM ISFKQEE EN EGLKPEEPQ SANBQWVQ ETF KNF CN 1138
rRIZ	LSA[SSVSS GDNLEASLPM VIFKQEE IS EGLKPEEPQ SANBQWVQ ETF KNF CN 1126
Consensus	LSA[SSVSS GDNLEASLPM EKOEE E EGLKPEEPQ SANBQWVQ ETF KNF CN 1140
hRIZ	VCESPFLSIK DLTKHLS[HA EEWPFKCEFC VQLFK[KTDL SEHRFLLHGV GNIFVCVCK 1198
rRIZ	VCESPFLSIK DLTKHLS[HA EEWPFKCEFC VQLFK[KTDL SEHRFLLHGV GNIFVCVCK 1186
Consensus	VCESPFLSIK DLTKHLS[HA EEWPFKCEFC VQLFK[KTDL SEHRFLLHGV GNIFVCVCK 1200
hRIZ	KEFAFLCNLQ QHORDLHPDK VCTHHEFESG TLRPQNFTDP SKA[VEHMS LPEPLETSK 1258
rRIZ	KEFAFLCNLQ QHORDLHPDE VCTHHEFESG TLRPQNFTDP SKA[VEHMS LPEPLETSR 1246
Consensus	KEFAFLCNLQ QHORDLHPD. VCTHHEFESG TLRPQNFTDP SKA[VEHMS LPEPLETS. 1260
hRIZ	EEE[LDSS ELYTTIKIMA SCI[KT[KDPDV RLGLNQHYP FKPPFQYHH RNPMGIGVTA 1318
rRIZ	EEE[LDSS ELYTTIKIMA SCI[KT[KDPDV RLGLNQHYP FKPPFQYHH RNPMGIGVTA 1305
Consensus	EEE[LDSS ELYTTIKIMA SCI[KT[KDPDV RLGLNQHYP FKPPFQYHH RNPMGIGVTA 1320
hRIZ	TNF[TTTHNIPQ TFTTAIRCTK CGKGVDNMP LHKHILACAS ASDKKRTPK KNPVPLKQTV 1378
rRIZ	TNF[TTTHNIPQ TFTTAIRCTK CGKGVDNMP LHKHILACAS ASDKKRTPK KNPVPLKQTV 1365
Consensus	TNF[TTTHNIPQ TFTTAIRCTK CGKGVDNMP LHKHILACAS ASDKKRTPK KNPVPLKQTV 1380
hRIZ	QPKNGVVLD NSCKNAFRRM CQPKRL[FEV E[KNM[ENKL KL ALKKKNQ LVQKAILOKN 1438
rRIZ	QPKNGVVLD NSCKNAFRRM CQPKRL[FEV E[KNM[ENKL KL ALKKKNQ LVQKAILOKN 1425
Consensus	QPKNGVVLD NSCKNAFRRM CQPKRL[FEV E[KNM[ENKL KL ALKKKNQ LVQKAILOKN 1440

FIGURE 1D



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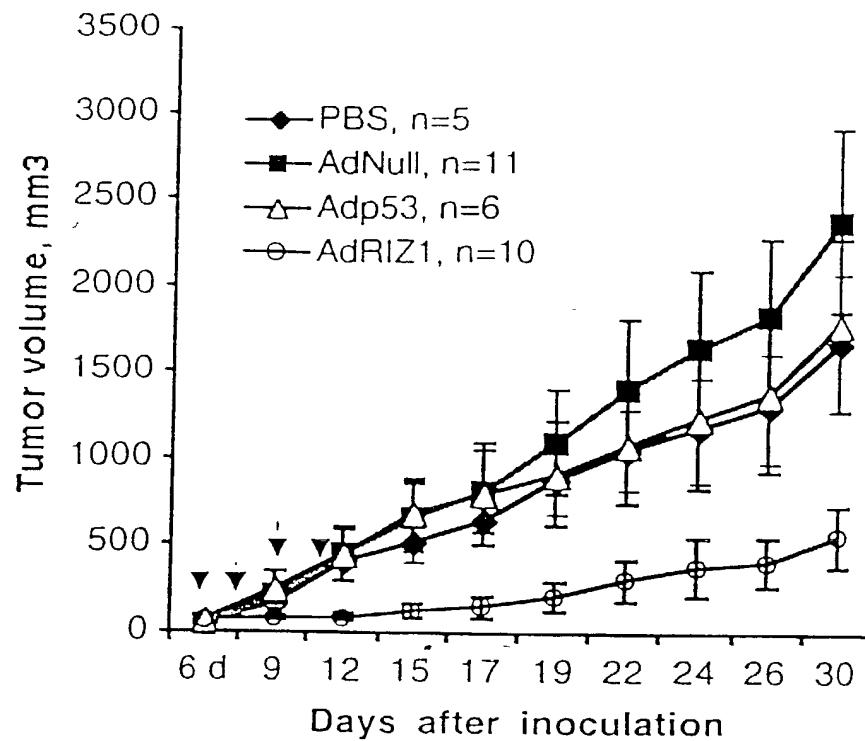
hRIZ	NAQFSSHIC PYC	REFTYI GSLNKHAAFS CPKKPLSPK	JKVSHSSKKQ	1498
rRIZ	DTSESSHIC PYC	REFTYI CSLNKHAAFS CPKKPLSPK	JKVSHSSKKQ	1485
Consensus	SSSHIC PYC	REFTYI GSLNKHAAFS CPKKPLSPK	JKVSHSSKKQ	1500
hRIZ	NSNSNHRRRT AD	QPLCKTRAR SEC PNOVHP SSSFRSPQNV	SRE LHTVRVQK	1558
rRIZ	NSNSCHRRRT AD EIKMOS	QPLCKTRAR SEC PNOVHP SSSFRSPQNV	SRE LHTVRVQK	1545
Consensus	NS SSD	QPLCKTRAR SEC PNOVHP SSSFRSPQNV	SRE LHTVRVQK	1560
hRIZ	KFAASVKSKK	SSSSLRNSS PIRMAKITHV EGKKPKAVAK	HSQAQLSSQ	1618
rRIZ	KFAASVKSKK	SSSSLRNSS PIRMAKITHV EGKKPKAVAK	HSQAQLSSQ	1605
Consensus	KFAASVKSKK	SSSSLRNSS PIRMAKITHV EGKKPKAVAK	HSQAQLSSQ	1620
hRIZ	QSKST LASKRTDRF	JKSRSERSGG PTRSLQLAA AADLSE	DISAKQELKD	1678
rRIZ	QSKST LASKRTDRF	JKSRSERSGG PTRSLQLAA AADLSE	DISAKQELKD	1665
Consensus	QSKM LASKRTDRF	JKSRSERSGG PTRSLQLAA AADLSE	RE D. SA. ELKD	1680
hRIZ	FSYSLRLASR	FSYSLRLASR CSPPPAHYIT RQTRKVKA	AFQCPFFK E	1719
rRIZ	FSYSLRLASR	FSYSLRLASR CSSTTAHYIT RQTRKVKA	AFRFFQCPFFK E	1707
Consensus	FSYSLRLASR Q	FSYSLRLASR Q A. HYIT RQ. RKVKA A. A. FQCPFFK E		1722

FIGURE 1E



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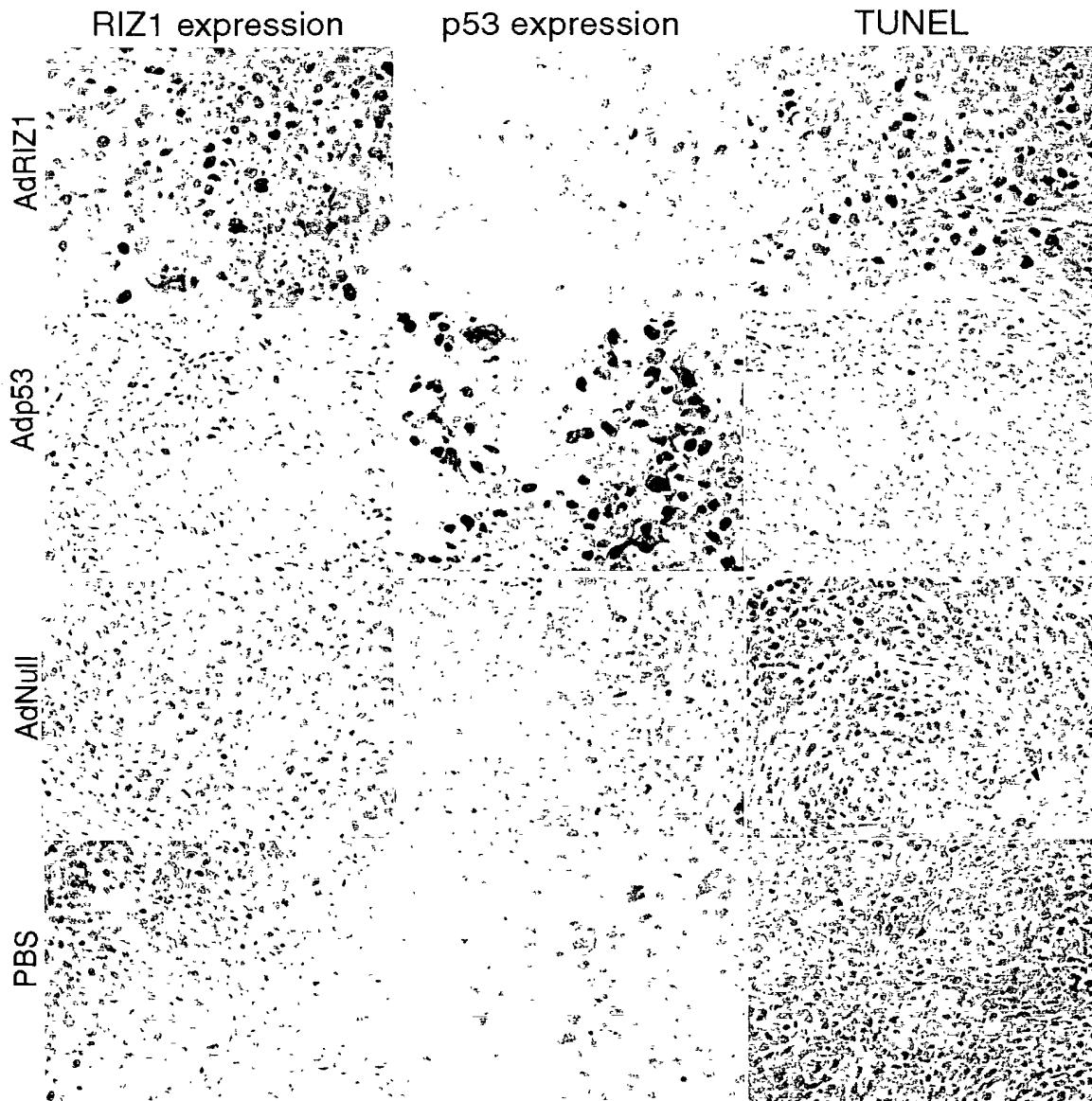


**FIGURE 2**

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**FIGURE 3**